Atty. Dkt. No. 017371-0109

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Nicholas MANOLIOS

Title: T CELL ANTIGEN RECEPTOR PEPTIDES

Appl. No.: 09/202,305

Filing Date: 3/22/1999

Examiner: Anish Gupta

Art Unit: 1654

AMENDMENT AND REPLY UNDER 37 CFR 1.111

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This communication is responsive to the Non-Final Office Action dated May 5, 2004, concerning the above-referenced patent application.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this document.

Remarks/Arguments begin on page 5 of this document.

Please amend the application as follows:

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AMENDMENT TRANSMITTAL

Mail Stop Amendment
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P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an amendment in the above-identified application.

[ ] Small Entity status under 37 C.F.R. § 1.9 and § 1.27 has been established by a previous assertion of Small Entity status.

[ ] Assertion of Small Entity status is enclosed.

[X] The fee required for additional claims is calculated below:

	Claims As Amended		Previously Paid For		Extra Claims Present		Rate		Additional Claims Fee
Total Claims:	13	-	20	=	0	x	$18.00	=	$0.00
Independent Claims:	3	-	3	=	0	x	$86.00	=	$0.00
First presentation of any Multiple Dependent Claims:						+	$290.00	=	$0.00
CLAIMS FEE TOTAL								=	$0.00

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claim 1. (Currently Amended) A peptide which inhibits T-cell antigen receptor (TCR) function, wherein the peptide is of the following formula:

R1-X-Z-X-R2 in which

X is a hydrophobic amino acid or a hydrophobic peptide sequence consisting of between 2 and 6 amino acids,

Z is a charged amino acid

R1 is NH2 and

R2 is COOH,

wherein the hydrophobic peptide sequence does not include a charged amino acid, and

wherein the peptide is at least seven amino acids in length.

Claim 2. (Canceled)

Claim 3. (Previously Presented) The peptide according to claim 1 wherein at least 50% of the amino acids which make up the hydrophobic peptide sequence are hydrophobic amino acids.

Claim 4. (Previously Presented) The peptide according to claim 1 wherein Z is selected from Arg and Lys.

Claim 5. (Previously Presented). The peptide according to claim 1 which has the formula

NH2-Ile-Leu-Leu-Leu-Lys-Val-Ala-Gly-Phe-OH (SEQ ID NO. 6),
NH2-Ile-Leu-Leu-Leu-Lys-Val-Ala-Gly-OH (SEQ ID NO. 7),
NH2-Leu-Arg-Ile-Leu-Leu-Leu-Gly-Val-OH (SEQ ID NO. 8),
NH2-Leu-Gly-Ile-Leu-Leu-Leu-Lys-Val-OH (SEQ ID NO. 9),

NH2-Ile-Leu-Leu-Gly-Lys-Ala-Thr-Leu-Tyr-OH (SEQ ID NO. 10),
NH2-Met-Gly-Leu-Arg-Ile-Leu-Leu-Leu-OH (SEQ ID NO. 11), or
NH2-Leu-Leu-Met-Thr-Leu-Arg-Leu-Trp-Ser-Ser-COOH (SEQ ID NO. 12).

Claim 6. (Previously Presented) The peptide according to claim 1 wherein Z is selected from aspartic acid and glutamic acid.

Claim 7. (Original) A peptide according to claim 6 wherein the peptide has the formula

NH2-Ile-Ile-Val-Thr-Asp-Val-Ile-Ala-Thr-Leu-OH,
NH2-Ile-Val-Ile-Val-Asp-Ile-Cys-Ile-Thr-OH, or
NH2-Phe-Leu-Phe-Ala-Glu-Ile-Val-Ser-Ile-OH.

Claim 8. (Previously Presented) A peptide which inhibits TCR function, wherein the peptide is derived from the TCR-α intracellular chain and comprises the formula:

NH2-Ala-Gly-Phe-Asn-Leu-Leu-Met-Thr-COOH (SEQ ID NO. 16).

Claim 9. (Withdrawn) A peptide which inhibits TCR function, wherein the peptide is of the following formula:-
R1-A-B-C-R2 in which
A is a peptide sequence of between 0 and 5 amino acids;
B is cysteine;
C is a peptide sequence of between 2 to 10 amino acids;
R1 is NH2; and
R2 is COOH.

Claim 10. (Withdrawn) A peptide according to claim 9 wherein A is a peptide sequence comprising 5 amino acids.

Claim 11. (Withdrawn) A peptide according to claim 9 wherein C is a peptide sequence of 4 or 5 amino acids and includes at least one hydrophobic amino acid.

Claim 12. (Previously Presented). A peptide which inhibits T-Cell antigen receptor function wherein the peptide has the formula:

NH2-Tyr-G1y-Arg-Ala-Asp-Cys-Gly-Ile-Thr-Ser-OH (SEQ ID NO. 17), or
NH2-Trp-Gly-Arg-Ala-Asp-Cys-Gly-Ile-Thr-Ser-OH (SEQ ID NO. 18), or
NH2-Tyr-Gly-Arg-Ala-Asp-Cys-Ile-Thr-Ser-OH (SEQ ID NO. 19), or
NH2-Ser-Ser-Asp-Val-Pro-Cys-Asp-Ala-Thr-Leu-Thr-OH (SEQ ID NO. 20).

Claim 13. (Previously Presented) A therapeutic composition active against disorders in which T-cells are involved or recruited comprising a peptide as claimed in claim 1 and a pharmaceutically acceptable carrier.

Claim 14. (Withdrawn) A method of treating a subject suffering from a disorder in which T-cells are involved or recruited, the method including administering to the subject a therapeutically effective amount of the composition as claimed in claim 11.

Claim 15. (Canceled)

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

Date 4 August 2004

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